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REMARKS / DISCUSSION OF ISSUES

Claims 1, 3-8, 10-34, and 36-40 are pending in the application.

The Examiner rejects claims 1-8, 10-30, 36, and 39-40 under 35 U.S.C. 103(a) over Zawilinski (USP 5,676,138) in view of Hoffberg et al. (USP 6,400,996, hereinafter Hoffberg), and further in view of Strubbe (USP 5,483,278). The applicants respectfully traverse this rejection.

Neither Zawilinski, Hoffberg, nor Strubbe teaches or suggests creating an association between an emotional response and descriptive information related to a stimuli that produces the emotion response, and Neither Zawilinski, Hoffberg, nor Strubbe teaches or suggests determining and storing a viewer preference based on such an association.

In KSR Int'l. Co. v. Teleflex, Inc., the Supreme Court noted that the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit, and that it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed:

"Often, it will be necessary ... to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit.**" KSR, 82 USPQ2d 1385 at 1396 (emphasis added).

The applicants respectfully maintain that there is no apparent reason to combine Zawilinski and Hoffberg, and no apparent reason to combine Zawilinski, Hoffberg, and Strubbe. The applicants further maintain that even if such combinations were formed, they would not result in a combination of elements in the fashion claimed by the applicants.

US010588US Amend 9.0302

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Zawilinski discloses a system for collecting viewer reactions to television commercials; Zawilinski does not teach or suggest determining an association between the viewer reactions and descriptive information related to the stimuli that produces the reaction. Each television commercial is individually assessed, and there is no attempt in Zawilinski to provide descriptive information for each of the television commercials so that an association of the user's reaction with such descriptive information can be defined.

Hoffberg discloses an improved computer interface based on anticipation of a user's behavior:

"In a particular application, the user interface according to the present invention is applied to general-purpose-type computer systems, for example, personal computers" (Hoffberg, column 2, lines 22-24);

"The interface system predicts a desired **action** based on the user input, a past history of use, a context of use, and a set of predetermined or adaptive rules" (Hoffberg, column 51, lines 12-14);

"The present invention addresses these issues by determining the most likely instructions of the operator, and presenting these as easily available choices, by analyzing the past history data and by detecting the "sophistication" of the user in performing a function, based on all information available to it" (Hoffberg, column 52, lines 12-17);

"Therefore, the present invention provides an optimized interface system which, upon recognizing a context, dynamically reconfigures the availability or ease of availability of functions and allow various subsets to be used through "shortcuts"" (Hoffman, column 52, lines 39-44).

Hoffberg discloses that the predicted action may be a function of the person's mood, and teaches that monitoring the biometrics of the person can provide an indication of the user's current mood. Hoffberg does not teach determining an association between the user's current mood and a current input stimulus, such as a currently viewed program; conversely, Hoffberg uses the user's current mood to produce the most likely subsequent action of the user.

Of particular note, Hoffberg teaches determining a user's mood, and not determining the user's reaction. Although one's mood may be in reaction to something, Hoffberg does not address the cause of the user's mood, and cannot be said to teach associating a recognized emotional **response** with descriptive information relating to a program that was being displayed when the physical reaction was sensed.

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The Examiner asserts that one of skill in the art would "modify the at least one sensor of Zawilinski to include a microphone for picking up vocalizations, as taught by Hoffberg, to provide additional physiological data from which the user's preference can be inferred". The applicants respectfully disagree with this assertion because the use of the physiological data in Zawilinski is contrary to the use of the physiological data in Hoffberg. Zawilinski's invention is premised on the assumption that the input visual stimuli will cause the observed physiological data, such that the observed physiological data is a **response** to the visual stimuli. Hoffberg's invention, on the other hand, is premised on the assumption that the observed physiological data will **cause** the user to act in a particular manner, such that the predicted action will be in response to the observed physiological data, and not vice versa.

The Examiner also asserts that one of skill in the art would "combine the teachings of Zawilinski and Hoffberg to provide recommendations to the user based on viewer preferences". The applicants respectfully maintain that such a combination would not lead to the applicants' claimed invention.

Zawilinski teaches that a user's reaction to stimuli can be determined using physiological data, and Hoffberg teaches that the user's current mood can be used to predict the user's preferred next action. Absent the applicants' teachings, the combination of Zawilinski and Hoffberg would result in using Zawilinski's physiological system to determine the user's reaction to the user's current environment, and using Hoffberg's system to predict the user's preferred next action based on the resultant mood determined by Zawilinski's system. Neither Zawilinski nor Hoffberg teaches associating a recognized emotional response with descriptive information relating to a program that was being displayed when the physical reaction was sensed, as taught and claimed by the applicants.

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It is significant to note that the applicants' association of user reaction to descriptive information related to the program being viewed is significantly different than Zawilinski's use of a user's reaction to evaluate individual advertisements. Zawilinski does not determine what aspects of the evaluated advertisements cause the viewers' reactions. Even given Zawilinski's graphs of FIGs. 4, 5, 6A-6C, one cannot determine which aspects of the advertisements caused, for example, "Ecstasy", and which aspects of the advertisements caused "Grief", or "Astonishment", or any of Zawilinski's other identified emotional responses.

In the applicants' claimed invention, however, the user's reaction to each viewed item is associated with descriptive information, such as contained in an electronic program guide, including, for example, "violence", "action", "humor", and so on. In this manner, instead of merely determining whether a user likes or dislikes the particular program being viewed, these associations allows one to determine the "types" of programs that the user is likely to like or dislike, based on the descriptive information (see applicants' specification, pages 29-32).

Based on the above remarks, the applicants respectfully maintain that, absent the applicants' teachings, there is no apparent reason that one of skill in the art would combine Zawilinski and Hoffberg in the fashion claimed by the applicants.

Strubbe teaches a conventional program recommendation system, wherein programs are recommended for viewing based on a user's preferences. Strubbe does not teach that the user's preferences are determined and stored based on physiological data collected while a user viewed other content material, as claimed.

Even assuming in argument that a combination of Zawilinski, Hoffberg and Strubbe were formed, the applicants respectfully maintain that such a combination would not teach or suggest the elements of the applicants' claim 1. Neither Zawilinski, Hoffberg, nor Strubbe teaches or suggests a system that provides and stores a viewer preference based on an association of a recognized emotional response with descriptive information relating to a program that was being displayed when the physical reaction was sensed, as specifically claimed in claim 1.

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Zawilinski discloses associating a recognized emotional response with a video segment being viewed, but does not teach or suggest an association between this emotional response and descriptive information related to the video segment, and does not provide and store a viewer preference based on such an association.

Hoffberg discloses using a recognized emotional response to predict a user's preferred next action, but does not teach or suggest an association between this emotional response and descriptive information related to a stimuli that produces the emotional response, and does not provide and store a viewer preference based on such an association.

Strubbe discloses selecting subsequent items based on a user's preferences, but does not teach or suggest an association between a user's emotional response and descriptive information related to a stimuli that produces such an emotional response, and does not provide and store a viewer preference based on such an association.

Because neither Zawilinski, Hoffberg, nor Strubbe teaches or suggests an association between an emotional response and descriptive information related to a stimuli that produces the emotion response, and does not provide and store a viewer preference based on such an association, and because the Examiner does not provide an apparent reason, absent the applicants' disclosure, that one of skill in the art would create an association between an emotional response and descriptive information related to a stimuli that produces the emotional response, the applicants respectfully maintain that the rejection of claims 1, 3-8, 10-30, 36, and 39-40 under 35 U.S.C. 103(a) over Zawilinski in view of Hoffberg and further in view of Strubbe is unfounded, and should be withdrawn.

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The Examiner rejects:

claims 31 and 32 under 35 U.S.C. 103(a) over Zawilinski, Hoffberg, Strubbe and Black et al. (USP 5,774,591);

claims 33 and 38 under 35 U.S.C. 103(a) over Zawilinski, Hoffberg, Strubbe and Bentolila et al. (USPA 2003/0101449); and

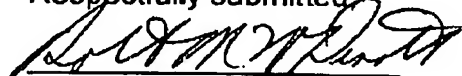
claim 37 under 35 U.S.C. 103(a) over Zawilinski, Hoffberg, Strubbe and Shinohara et al. (USPA 2003/0005431). The applicants respectfully traverse this rejection.

Each of these rejected claims is dependent upon independent claims 11 or 34, and in this rejection, the Examiner relies on the combination of Zawilinski, Hoffberg, and Strubbe for teaching the elements of claims 11 and 34. As noted above, the combination of Zawilinski, Hoffberg, and Strubbe fails to teach or suggest the elements of claims 11 and 34, and neither Black, Bentolila, nor Shinohara corrects this deficiency. Accordingly, the applicants respectfully maintain that the rejections of claims 31-33 and 37-38 under 35 U.S.C. 103(a) that rely on the combination of Zawilinski, Hoffberg, and Strubbe for teaching the elements of claims 11 and 34 is unfounded, and should be withdrawn.

In view of the foregoing, the applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted



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